

00000000000000000000000000000000  
00000000000000000000000000000000

Author: V. I. Tarasov, A. N. Sazanov, V. Yu. Tarasov,  
A. V. Kuznetsov, Yu. I. Kostylev, A. V. Slobodchikov, V. Yu. Tarasov,

AUTHORS:

A. V.

Plastic and magnetic scattering of protons by Ne<sup>22</sup> nuclei

TITLE:

Plastic and magnetic scattering of protons by Ne<sup>22</sup> nuclei

PERIODICAL:

JOURNAL OF EXPERIMENTAL AND COMPUTATIONAL PHYSICS, v. 43,

n. 3(3), 1982, 769-791

ABSTRACT:  
Cross sections were measured of plastic (reaction energies 1.0-1.2 MeV) and magnetic (1.0-1.2 MeV) scattering, Ne<sup>22</sup>(p,p'), through the angles 30°, 45°, and 60° in the center-of-mass system and the angular distribution of the 1.07-MeV gamma radiation. An apparatus described by A. K. Val'ter et al. (Jav. AN SSSR, Seriya fiz., 1973, 217) was used. The target was enriched to 97% with Ne<sup>22</sup>. The results of these measurements were evaluated by the method of least squares under the following conditions: the resonance investigated is related to a single level. Only the least possible orbital moments l and l' take part in the reaction. The Ne<sup>22</sup> ground state has spin and parity 0+, the first excited state 2+.

Card 1/2

44225

S/056/62/043/006/012/067  
B102/B104

AUTHORS: Val'ter, A. K., Popov, A. I., Storizhko, V. Ye.

TITLE: Elastic scattering of protons from Si<sup>30</sup> nucleiPERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,  
no. 6(12), 1962, 2038 - 2041

TEXT: The differential elastic proton scattering cross-sections  $\sigma(\theta)$  were measured at the c.m. angles  $\theta = 90^\circ, 125^\circ$ , and  $141^\circ$  and at  $14^\circ E_p \leq 3.65$  Mev. The monochromatic ( $\pm 0.05\%$ ) protons used in the experiments were obtained from the electrostatic accelerator of the FTI AN USSR. The scattered protons were analyzed by a magnetic spectrometer and detected with a thin CsI(Tl) crystal. The proton current was determined with a beam-catcher and a current integrator. The thin Si<sup>30</sup> target was prepared in a magnetic separator by introducing Si<sup>30</sup> ions into spectrally pure graphite. In the energy range investigated, the  $\sigma(E_p)$  curves showed 52 resonances that can be related to excited states of the P<sup>31</sup> nucleus. The most pronounced

Card 1/2

Elastic scattering of...

S/056/62/043/006/012/067  
B102/B104

resonances are analyzed in the single-level approximation of dispersion theory. Results: The excited 8.751-Mev level of  $P_{\pi}^{3/2}$  that corresponds to the resonance at  $E_p = 1514$  kev most probably has the characteristics  $l = 0$ ,  $J = 1/2^+$ . The resonance at  $E_p = 3202$  kev corresponds to the 10.385 Mev level with  $l = 2$  and most probably  $J = 5/2^+$ . The resonance at  $E_p = 3308$  kev corresponds to the 10.487 Mev level with the characteristics  $1/2^+$ . This resonance is due to a proton capture in the S-state. The resonance at  $E_p = 3438$  kev corresponds to the 10.614 Mev level with  $l = 2$  and  $J = 3/2^+$ . The cross-sections of the  $Si^{30}(p,p)Si^{30}$  reactions decrease with increasing  $E_p$ ; this decrease is most pronounced at  $\theta = 90^\circ$  and least at  $141^\circ$ . There are 4 figures and 1 table.

ASSOCIATION: Fiziko-tehnicheskiy institut Akademii nauk Ukrainskoy SSR  
(Physicotechnical Institute of the Academy of Sciences  
Ukrainskaya SSR); Khar'kovskiy gosudarstvennyy universitet  
(Khar'kov State University)

SUBMITTED: July 11, 1962  
Card 2/2

S/056/63/044/001/011/067  
B108/B180

AUTHORS: Val'ter, A. K., Storizhko, V. Ye., Popov, A. I.

TITLE: Elastic scattering of protons by Mg<sup>24</sup> nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,  
no. 1, 1963, 57 - 62

TEXT: Protons with energies of 1450 - 4200 kev were extracted from an electrostatic accelerator and scattered by a target composed of 99% pure Mg<sup>24</sup> on a spectroscopically pure graphite backing. The scattered protons were recorded on a magnetic spectrometer with a CsI(Tl) crystal and an Ф3Y-19 (FEU-19) photomultiplier. The error was less than 3%. Resonances were observed at proton energies of 1495, 1624, 1670, 2015, 2410, 2920, 3140, 3669, and 4022 kev. These correspond to the Al<sup>25</sup> levels with the excitation energies of 3.725, 3.850, 3.893, 4.224, 4.604, 5.093, 5.304, 5.812, and 6.151 Mev. According to the single-level approximation of dispersion theory, the broad resonance at E<sub>p</sub> = 3140 kev is due to proton capture in a state with l = 0. The corresponding Al<sup>25</sup> level (excitation Card 1/2

Elastic scattering of protons ...

S/056/63/044/001/011/067  
B108/B180

energy 5.304 Mev) is a  $1/2^+$  level. The spin and parity of the 5.812-Mev level are  $3/2^+$  or  $5/2^+$ , those of the 6.151-Mev level are  $3/2^+$ . The protons are captured onto this level in a state with  $l = 2$ . The characteristics of the remaining Al<sup>25</sup> levels with excitation energies of less than 5 Mev agree with the results of earlier papers. There are 2 figures and 2 tables. The most important English-language references are:  
P. M. Endt, C. M. Braams. Rev. Mod. Phys., 29, 683, 1957; A. E. Litherland et al. Can. J. Phys., 36, 378, 1958; H. W. Lewis, W. T. Joyner. Bull. Am. Phys. Soc., 11, 280, 1956.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University); Fiziko-tehnicheskiy institut Akademii nauk USSR (Physicotechnical Institute of the Academy of Sciences UkrSSR)

SUBMITTED: July 10, 1962

Card 2/2

VALITER, A.L.; STORIZHKO, V.Ye.; POKOV, A.I.

Elastic proton scattering by  $Mg^{24}$  nuclei. Zhur. ekspr. i teor. fiz.  
44 no.1:57-62 Ja '63. (MIRA 16:5)

1. Khar'kovskiy gosudarstvennyy universitet i Fiziko-tehnicheskiy  
institut AN UkrSSR.  
(Protons—Scattering) (Magnesium)

STORZHEKO, V. Yev.; ROMOV, A. I.

"Levels of  $P^{31}$  from  $Si^{28}(p,p)Si^{28}$ ."

"Elastic Scattering of Protons by Nuclei Ar $^{36}$ ."

Report submitted for All-Ukrainian Conf on Nuclear Spectroscopy, Tbilisi, 1984

Feb 64.

KIETI (Ukrainian Nuclear Technical Inst, Khar'kov)

STORIZHEKO, V. Ye.; POPOV, A.I.

Elastic scattering of protons by Ar<sup>36</sup> nuclei. Izv. AN SSSR.  
Ser. fiz. 28 no.7:1145-1151 Jl '64 (MIRA 17:8)

p<sup>30</sup> levels manifesting themselves in the Si<sup>29</sup>(p,p)Si<sup>29</sup>  
reaction. Ibid. 8:1152-1155

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

REF ID: A653410013  
DATE: 08/26/2000  
FILED: 08/26/2000

AUTHOR: Slabospitskiy, V.P., Tsvetkov, G.I., Usov, A.I.; Slabospitskiy, R.P.

INSTITUTION: Institute, Academy of Sciences, USSRNSR (Fizikalicheskaya  
nauka i tehnika)

TITLE: Inelastic scattering of protons by Ne-21. Spin and parity of the first excited  
state of Ne-21. Report, Fifteenth Annual Conference on Nuclear Spectroscopy and  
Nuclear Structure, held at Minsk, 26 January to 2 February 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 2, 1966, 249-254

TOPIC TAGS: proton scattering; inelastic scattering; gamma ray; nuclear energy level;  
neon;

ABSTRACT: The inelastic scattering of 1 to 3 MeV protons on Ne<sup>21</sup> was investigated in  
order to obtain information concerning the excited states of the Ne<sup>22</sup> compound nucleus  
and to determine the spin and parity of the 350 keV first excited state of Ne<sup>21</sup>. An  
enriched (30% Ne<sup>21</sup> and 70% Ne<sup>20</sup> and Ne<sup>22</sup>) target of neon embedded in a 0.1 mm thick  
tantalum substrate was employed. The 90° yield of 350 keV gamma rays was determined  
as a function of incident proton energy. Some 60 resonances were observed, and the  
energies, widths, and relative intensities of 24 of them are tabulated. The reso-  
nances at proton energies below 2.3 MeV were mostly well separated, and their energies

Card 1/2

L-41, b-4  
ACC NR: AP6019615

were determined with an accuracy of 5 keV; the resonances at higher proton energies were not well separated and they were not investigated further. Angular distributions of the 350 keV gamma rays associated with the different resonances were measured and the coefficients  $A_2$  and  $A_4$  in the expression  $1 + A_2 P_2(\cos \theta) + A_4 P_4(\cos \theta)$  for the angular distribution are tabulated for 19 of the resonances. For all but 7 of the resonances the value obtained for  $A_4$  was less than its probable error, and for only one of the resonances did  $A_4$  exceed its probable error by as much as a factor 2. From that it is concluded that the spin of the 350 keV level does not exceed 5/2. Theoretical angular distributions were calculated with different assumptions concerning the spin and parity of the 350 keV  $Ne^{21}$  level and the characteristics of the  $Na^{22}$  states and are discussed at length in connection both with the present measurements and with data in the literature. It is concluded that the spin and parity of the 350 keV  $Ne^{21}$  level are 5/2<sup>+</sup>. The authors thank M. I. Guseva for providing the  $Ne^{21}$  target. Orig. art. has: 2 formulas, 2 figures and 4 tables.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 003 OTH REF: 009

Card 2/2

HOENIG, V.; STORK, A.

[Study of plasma volume in shock states] Prispevek ke studiu plasmatickeho volumu a sakovych stavu. Cas.lek.cesk. 89 no.13:361-369 31 Mr '50.  
(CIML 19:1)

1. Of the First Internal Clinic of Charles University (Head -- Prof. Kr. Hynek, M.D.) and of the Central Biochemical Laboratories (Head -- Prof. Jar. Jorejsi, M.D.)

HOMNIG, V; STORK, A.

Significance of certain circulatory modifications in liver  
cirrhosis. Cas. lek. cesk. 89 no. 39:1071-1075 29 Sept. 1950.  
(CIML 20:1)

1. Of the First Internal Clinic of Charles University (Acting  
Head--Prof. Vr. Jonas, M. D.).

The influence of central nervous system on the Stevens  
man phenomenon. A. Sorkin and A. Korn (Proc. U.S. In-  
tent. Acad. Sci., 40, 1954). The Stevens phenomenon in certain animals  
was suppressed by performed anesthesia (ether), mainly  
by topical administration of antiseptics and drugs. The  
parenteral administration of antiseptics had no effect.  
10% 2,4-dimethylaminopropyl phenyl Sulfoxide had no effect  
only partially. But, local treatment of the skin with  
of propylene was ineffective.

STORK, A.; KOVARIKOVA, A.

Effect of the Central nervous system on Shwartzman phenomenon.  
Cas. lek. cesk. 93 no.36-37:982-983 10 Sept 54.

1. I. interni klinika, Přednosta prof. Dr. M. Matousek.  
(ALLERGY, experimental,  
Shwartzman phenomenon, role of CNS)  
(CENTRAL NERVOUS SYSTEM, physiology  
in Shwartzman phenomenon)

STORK, Alois, MUDr

Clearing factor and its relation to heparin; determination of clearing capacity of the plasma with the aid of diluted milk.  
Ces. lek. cesk. 93 no.50:1387-1388 10 Dec 54.

1. Asistent I. interni kliniky, prednosta prof. Dr Milos Metousek.  
(BLOOD,  
lipemia clearing factor, determ. with diluted milk)  
(MILK,  
determ. of lipemia clearing factor with diluted milk)

STORK, Alois, MUDr.; KUCEROVÁ, Ludmila, MUDr.

Clearing factor of blood plasma after heparin in relation to  
atherosclerosis. Čas. lék. česk. 95 no.11:283-286 1956.

1. Z I kliniky nemoci vnitřních, prednosta prof. MUDr Milos  
Netousek.

(HEPARIN, eff.  
clearing factor of blood plasma in atherosclerosis)

(PLASMA  
clearing factor after heparin inject. in atherosclerosis)

(ARTERIOSCLEROSIS  
atherosclerosis, clearing factor of blood plasma after  
inject. of heparin)

STORK, Alois, MUDr.; KUCKROVÁ, Ludmila, MUDr

Value of blood lipase before and after heparin injections.  
Cas. lek. česk. 95 no.11:286-287 1956.

1. Z I. kliniky nemoci vnitřních, prednosta prof. MUDr  
Milos Netousek.

(LIPASES, in blood  
eff. of heparin on quality)

(HEPARIN, eff.  
on blood lipase quality)

(BLOOD  
lipase, eff. of heparin on quality)

STORK, A.; KUCEROVA, L.

Clearing factor of blood plasma in diabetics after heparin injection. Cas. lek. cesk. 95 no.40:1106-1108 5 Oct 56.

1. I. interni klinika Karlovy university v Praze. Prednosta prof.  
MUDr. M. Netousek, lekarskych ved.  
(DIABETES MELLITUS, blood in  
eff. of heparin on plasma clearing factor ( $C_2$ ))  
(HEPARIN, eff.  
on plasma clearing factor in diabetes mellitus ( $C_2$ ))  
(PLASMA  
clearing factor in diabetes mellitus, eff. of heparin  
( $C_2$ ))

ENCRIPTA MEDICA Sec 20 Vol 2/7 Gerontology July 59

925. The clearing effect of blood plasma and the plasma cholesterol level following i.v. injection of heparin. Die Klärungsfähigkeit des Blutplasmas und Veränderungen des Plasmacholesterinspiegels nach intravenöser Heparininjektion bei Diabetikern und Atherosklerotikern. STORK A. and KČERKOVÁ L. I. Med. Klin., Karls-Univ., Prag Dtsch. med. Wschr. 1957, 82/35(1) (1410-1413) Graphs 1 Tables 7

The lipaemia-clearing effect of a single i.v. injection of heparin was studied in diabetic and atherosclerotic patients and in 20 controls. The mean clearing factor activity in the control material was 20.03%. In 22 diabetic and 15 atherosclerotic patients the mean values were 14.71 and 4.22% respectively. In the diabetic group, however, 8 patients with manifest atherosclerosis had a mean value of only 2.03% while the remaining 14 patients in this group showed unexpectedly high values (mean 21.98%). A single injection of heparin gave no significant lowering of the plasma cholesterol level.

Björnesjö - Karlstad (11, 6, 18, 20)

STORK, A.; KUCEHOVA, L.

Relation of the clearing factor of blood plasma after heparin to  
cholesterolemia. Sborn. lek. 59 no.4:112-116 Apr 58.

1. I. interni kliniky fakulty všeobecného lékařství Karlovy univerzity  
v Praze, prednosta prof. Dr. Milos Netousek. A. S. Praha 11-499-1.  
interni kliniky.

(LIPASES

lipoprotein lipase, relation of cholesterolemia (Cs))

(CHOLESTEROL, in blood

relation to lipoprotein lipase (Cs))

STORK, A.; KUCEROVA, L.

Extraction of free & bound cholesterol after heparin injection in  
normal & atherosclerotic patients. Cas. lek. cesk. 97 no.10:319-323  
7 Mar 58.

1. I. interni klinika Karlovy univerzity v Praze, predmosta prof.  
Dr. Milos Netousek. A. S., Praha 2, U Nemocnice 2.

(CHOLESTEROL, in blood  
in arteriosclerosis, eff. of heparin (Cs))

(ARTERIOSCLEROSIS, blood in  
cholesterol, eff. of heparin (Cs))

(HEPARIN, eff.  
on blood cholesterol in arteriosclerosis (Cs))

KUCHROVA, L.; STORK, A.; FABIAN, E.

Determination of clearing factor. Cas. lek. cesk. 98 no.13;398-401  
27 Mar 59.

1. I. interni kliniky KU v Praze, prednosta prof. dr. M. Hetousek.  
(LIPASES, in blood  
lipoprotein lipase in normal & arteriosclerotic patients  
(C<sub>z</sub>))  
(ARTERIOSCLEROSIS, blood in  
lipoprotein lipase (C<sub>z</sub>))

STONK, A.; KUCEROVA, L.; FABIAN, E.

Lipoprotein changes after heparin injection in relation to the clearing factor. Cas. lek. cesk. 98 no.13:401-403 27 Mar 59.

1. Statistické spracování: Ing. František Fabian.

(LIPASES, in blood  
lipoprotein lipase in normal & arteriosclerotic patients  
(Cz))

(ARTERIOSCLEROSIS, blood in  
lipoprotein lipase (Cz))

KUCEROVA, L.; STORK, A.; VABIAN, E.

Trial therapy of atherosclerosis with anzyme preparations. I. Clinical part. Cas. lek. cesk. 98 no.13:403-407 27 Mar 59.

1. I. interni klinick MU v Praze, prednosta prof. dr. Milos Metousek.  
(ARTERIOSCLEROSIS, ther.  
vasolastine, statist. (Cz))  
(ENZYMES, ther. use  
vasolastine in arteriosclerosis, statist. (Cz))

STORK, A.; KUCEROVA, L.; FABIAN, Ye. .

Factor of clarification in the pathogenesis of atherosclerosis.  
Klin. med. 38 no. 2:54-62 F '60. (MIEA 14:1)  
(ARTERIOSCLEROSIS) (LIPOPROTEINS)

STORK, A.; KUCEROVA, L.; FABIAN, E.

Experience with the treatment of atherosclerosis with an enzymatic preparation. Part II. Changes of biochemical indices. Cas. lek. cesk. 99 no.7/8:427-251 19 F '60.

l. I. interni klinika KU v Praze, prednosta prof. MUDr. Milos Netousek.

(ARTERIOSCLEROSIS ther.)  
OXIDASES ther.)

KOVARIKOVA Alena L.; STORK, Alois

Pharmacology and clinical use of lanatoside D. Cas.lek.cesk 100 no.21:  
653-657 26 My '61.

1. Vyzkumny ustav prioridnich leciv, I interni klinika lekarske fakulty  
KU, Praha.

(DIGITALIS)

KUCEROVA, L.; STORK, A.

Some changes in metabolism of lipids in kidney diseases. I.  
Nephrotic syndrome. Cas. lek. cesk. 101 no.20:618-623 18 My '62.

1. I interni klinika lekarske fakulty KU v Praze, prednosta prof.  
dr. V. Hoenig, DrSc.  
(NEPHROTIC SYNDROME metabolism)  
(LIPIDS metabolism)

STORK, Alois; KUCEROVA, Ludmila

Postheparin esterase and clearing factor in liver diseases. Cas.  
lek. cesk. 101 no.27:833-836 6 J1 '62.

1. I interni klinika fakulty všeobecného lekarství KU v Praze, prednosta  
prof. dr. V. Hoenig, DrSc.

(LIVER DISEASES blood) (ESTERASES blood)  
(HEPARIN pharmacol)

KUCEROVA, L.; STOJK, A.

Idiopathic hyperlipidemia. Cas. lek. cesk. 161 no. 32; Lek Ved Zahr: 185-190 21  
S '62.

1. I. interni klinika fakulty všeobecného lekarství KU v Praze,  
prednosta prof. dr. V. Hoenig DrSc.  
(BLOOD LIPIDS)

KUCEROVA, L.; STORK, A.

Some changes of fat metabolism in kidney diseases. II. Glomerulonephritis. Cas. lek. cesk. 101 no. 38:1137-1140 21 9 '62.

1. I interni klinika fakulty všeobecného lekarství KU v Praze,  
prednosta prof. dr V. Hoenig, DrSc.  
(LIPID METABOLISM) (GLOMERULONEPHRITIS)

1. Author(s) / Institution(s)

HANNAH KUBOVÁ, L., and VOLEK, V., with technical cooperation  
of PROF. M. R., of the First Clinic of Internal Medicine (I. inter-  
niály), Faculty of General Medicine (fakulta všeobecného lekar-  
ství), Charles University, Prague, Prof V. HOENIG, MD, director.

"Effect of heparin on the Activity of Serum Transaminases"

Prague, České a Slovenské vědecky, Vol CII, No 17, 26 April 63, pp 441-  
444.

Abstract. Authors' (English summary): The activity of SGOT and SGPT  
before and after intravenous injection of heparin was studied in 40  
subjects. Out of this number eight subjects served as a control group,  
eleven suffered from glomerulonephritis, four from diabetes, five from  
idiopathic hyperlipaemia, and twelve from hepatic disease. No signifi-  
cant change in the activity of these enzymes could be observed in any  
of the patients. An apparent increase of SGOT and SGPT activity in two  
patients suffering from idiopathic hyperlipaemia was caused by in-  
creased turbidity of the reacting mixture during incubation. Twenty-one  
references, including nine Czech.

STORK, A.; KUCEHOVA, L.; VOLEK, V.; technicka spoluprace PAPEZLOVA, R.

Effect of heparin on the activity of serum transaminases. Cas. lek. cesk. 102 no.17:441-444 26 Apr '63.

1. I. interni klinika fakulty všeobecného lékařství KU v Praze,  
prednosta prof. dr. V. Hoenig.  
(HEPARIN) (PHARMACOLOGY) (ALANINE AMINOTRANSFERASE)  
(ASPARTATE AMINOTRANSFERASE) (BLOOD CHEMICAL ANALYSIS)  
(GLOMERULONEPHRITIS)

KUCEROVA, L.; STORK, A.; FABIAN, E.

Clinical manifestation of idiopathic hyperlipemia. Cas. lek.  
cesk. 102 no. 51:1393-1400 20 D'63.

1. I. interni klinika fakulty všeobecného lekarství KU v  
Praze; prednosta: prof. dr. V. Hoenig, DrSc.

\*

STORK,A.; KUCEROVA,L.; FABIAN,E.; technicka spoluprace: TABOROVÁ, R.

Activity of lipoprotein lipase and postheparin esterase in  
idiopathic hyperlipidemia. Cas.lek.cesk. 102 no.52:14.09-14.12  
27 D'63.

1. I. interní klinika fakulty všeobecného lekarství KU v  
Praze; prednosta: prof.dr. V.Hoenig, DrSc.

FABIAN, E.; STORK, A.; KUCEROVA, L.

Genealogy in essential hyperlipemias of adults. Acta univ.  
Carol. [med] (Praha):Suppl. 18: 171-176 '64.

I. I. Interni klinika fakulty všeobecného lekarství University  
Karlových Várad (prednosta: prof. dr. V. Hoenig)

STORK, A.; KUCEROVA, L.

Some metabolic changes in idiopathic hyperlipemia. Cas.lek.  
cesk. 103 no.2:43-45 10 Ja'64.

1. I. interni klinika fakulty vseobecneho lekarstvi KU v  
Praze; prednosta: prof.dr. V.Hoenig. DrSc.

\*

KUCEROVA, L.; STORK, A.; FABIAN, E.. Technicka spoluveraze: TABOROVA, B.;  
PAPEZOVÁ, H.

Effect of diet containing sunflower oil on the course of  
idiopathic hyperlipidemia. Cas. lek. czech. '64 n° 9:230-234  
26 F'64.

1. I. interni klinika fakulty všeobecného lékařství KU v  
Praze; prednosta: prof. dr. V. Koenig, DrSc.

\*

FABIAN, E.,(Praha 2, U nemocnice 2); KUCEROVA, I.; STORK, A.

Some indicators of lipid metabolism in diabetes mellitus.  
Cas. lek. Cesk. 104 no.43:1186-1189 29.6.1965.

1. I. interni klinika fakulty všeobecného lékařství Karlovy  
University v Praze (prednosta prof. dr. V. Hoenig, DrSc.).  
Submitted Oct. 1964.

Hyperlipidemia, prednosta prof. dr. V. Hoenig.

Hyperlipidemia, Univ. Lek. Czech. Inst. nutričních věd, vnitř. díl:  
201-07-12 N 115.

I. I. Interní klinika fakulty všeobecného lekarství Karlovy  
University v Praze (prednosta prof. dr. V. Hoenig, DrSc.).

FARIAN, F.; KOBILKOVA, J.; KYCEROVA, L.; STURK, A.; SICNAJOVA, J.

The influence of estrogens on the action of postheparin esterase.  
Cas. lek. Cesk. 104 no.47:1301-1302 26 N '65.

I. I. interni klinika fakulty všeobecného lékařství Karlovy Univerzity v Praze a Laborator pro patofyziologii krvetvorby a jater pri I. interni klinice (prednosta prof. dr. V. Hoenig, DrSc.) a I. gynekologicko-porodnicka klinika fakulty všeobecného lékařství Karlovy University v Praze (prednosta prof. dr. K. Klaus, DrSc.).

CLINIC OF INTERNAL MEDICINE

KRUMLOVA, L.; HOZIKIG, V.; MARIAN, Z.; JIRSA, K.; SOKOLOVSKA, A.; 1st Internal Clinic, Faculty of General Medicine, Charles University (I. Interni Klinika Fakulty Vseobecneho Lekarstvi KU), Prague, Laboratory for Pathophysiology of Blood Formation and Liver Diseases at the 1st Internal Clinic (Laborator pro Patofyziologii Krveta a jater pri I. Interni Klinice), Head (Prednost) Prof Dr V. HOZIKIG.

"Evaluation of the Changes in Non-esterified Fatty Acids in the Plasma in Clearing Reactions."

Prague, Casopis Lekaru Ceskych, Vol 105, No 24-25, 17 Jun 66, pp 681 - 682

Abstract: The increase in non-esterified fatty acids (NEF) in the clearing reaction *in vivo* was investigated; the possibility of the determination of the content of NEF by finding the concentration of albumin using bromosulfophthalein was studied. 23 healthy subjects were used in the experiments; it was found that the bromosulfophthalein method cannot be used to determine plasma concentration of NEF; the increase in their content can however, be determined in this way. 1 Figure, 5 Western, 6 Czech references.  
1/1

- 54 -

1/1  
CZECHOSLOVAKIA

UDC 615.36(612.115.35):612.12(577.153.084)

FABIAN, E.; HUGEROVA, L.; SICKA, A.; SPCAROVA, J.; 1st Internal Clinic, Faculty of General Medicine, Charles University (I. Int. Klinika Fak. Vseob. Lek. MU), Prague; Laboratory of Pathophysiology of Blood Formation and Liver Diseases at the 1st Internal Clinic (Laborator pro Patofyzilogii Krvetvorby a Jater pri I. Interni Klinice), Prague, Head (Prednosta) Prof Dr V. HOENIG.

"Relationship Between Postheparin Lipolytic and Esterase Activity in Healthy Men and Women."

Prague, Casopis Lekaru Ceskych, Vol 105, No 38, 16 Sep 66, pp 1030 - 1032

Abstract [Authors' English summary modified]: A group of healthy men and women was examined; the content of the free fatty acid plasma before and after the administration of heparin was determined. Activity of postheparin esterase and of lipoprotein lipase in vitro was determined. The relationship between the free fatty acids and lipoprotein lipase in vitro is discussed. Postheparin esterase activity is different in men and in women. No relationship between lipolysis in vivo and lipoprotein lipase activity in vitro was found. 1 figure, 11 Western, 7 Czech references. (Manuscript received Dec 65).

Vanadium in the Acid Steelmaking Process and Its Desulfurizing Capacity. (A Paper presented at the International Conference held in Paris on 10, 11, and 12 June 1952) by G. L. D. ...  
of the results of iron, silicon, manganese and vanadium  
tests conducted at plant corresponding to the vanadium  
specifications of E.C.V.P. (1951)

DK  
Met

Stork, J.

Stork, J. Chinese institutes engaged in construction research. p. 1<sup>59</sup>.

Vol. 4, no. 3, 1956  
STAVENÍČKÝ ČASOPIS  
TECHNICKÝ  
Czechoslovakia

No. East European Accessions, Vol. 6, May 1957

...  
...  
...

REH, J.

"Research in the Institute of Building and Architecture of the Slovak  
Academy of Sciences."

p. 197 (Stavba) Vol. 4, no. 7, July 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

1. PLANT/Chemical Technol Proj - Chemical Processes and Their  
Application. Ceramics. Glass. Binders. Concrete.

R-13

Abs Jour : Ref Zbirka - Khimiya, No 8, 1953, 2593

Author : Stork Juraj

Last :

Title : Some Correlations Between Composition and Consistence  
of Concrete Mix.

Orig Pub : Inz-ia i budown., 1957, 14, No 7, 259-264

Abstract : In connection with the building of hydraulic works in Slovakia a study was made of the effects of different factors on the behavior of concrete mix. On a change in the sand : gravel (S:G) ratio a change takes place in the consistency of concrete produced with a small expenditure of cement. In concrete containing larger proportions of cement a change in S:G ratio has little effect. With a water/cement ratio of 0.71 (cement content 200 kg/m<sup>3</sup>) the optimal amount of sand is shifted.

Card 1/2

- 30 -

卷之三

M. Jireček's *Electron diffraction bottom*. (Elements and formation of a multi-layered) - a critical review.

F. 1951 (Stavino) 1951, pp. 1-2, Aut. 1951, Praha, Nachod, Mikuláška

S : Monthly Update of East European "Newspapers" (EMAI) Vol. 4, No. 11 November 1974

1000.

Separation of government activities, analysis of a collection  
of information, p. 309.

1000. Separation of government activities, analysis of a collection  
of information, p. 309.

1000. Separation of government activities, analysis of a collection  
of information, p. 309.

1000.

URBANCZYK, Vladislav, inz.; HOLLER, Jaroslav, inz.; STORK, Jaromir, inz.

Reconstruction of the headgear at the Gottwald mine in Ostrava-Marvina coal field. Uhli 5 no.6:195-198 Je '63.

1. Dul President Gottwald (for Urbanczyk). 2. Zavody V.I. Lenina, Plzen (for Holler and Stork).

ACC NR: AP6026637

SOURCE CODE: CZ/0034/66/000/004/0294/0294

INVENTOR: Kaldrovits, J. (Doctor of natural sciences); Stork, J. (Doctor; Engineer; Doctor of sciences)

ORG: none

TITLE: Pendulum hardness gage. Class 42k, No PV 755-65

SOURCE: Hütnické listy, no. 4, 1966, 294

TOPIC TAGS: hardness, pendulum, mechanical measuring tool

ABSTRACT: The article is a summary of Czechoslovak Patent Application Class 42k, 36/04, PV 755 - 65, dated 4 Feb 65. The basis of the invention is the measurement of a penetration of a diamond point in investigated materials. The diamond is connected to a fly wheel. Two factors are measured to determine the hardness: one is the slowing down of the pendulum, and the other the volume of the material dislodged from the tested sample by the diamond point. Orig. art. has: 1 figure. [JPRS: 36,646]

SUB CODE: 20 / SUDM DATE: none

Card 1/1

0916 2320

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7

SECRET

Vol. 4, no. 1, Jan., Part 1951)

(Characteristic, India.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7"

STORKAN, F.

Czechoslovakia

Transformation der Koordinaten zwischen den Nachbarzonen der Gaußabbildung in  
der Praxis (tschech.) 8. 73-76

SO: Vermessungs Technik, Nov 1955, Uncl.

STORKAN, Frantisek, inz.

Information and publicity serving new technology in  
geodesy and cartography. Geog kart obzor 2 no.2:24-27  
F '56.

1. Ustredni sprava geodesie a kartografie.

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7"

KASIK, Ivan, Ing.; STOIKAS, Zdenek, Ing.; STAREK, Jiri

Electroslag remelting of steel and alloys in the Soviet  
Union. Bit Minty 19 no. 5:311-318 My '64

I. Research Institute of Iron Metallurgy, Prague (for Kasik  
and Starek). v. Spojene zcelamy, Kladno (for Starek).

Country : CZECHOSLOVAKIA

Category: Plant Diseases. Diseases in Cultivated Plants.

Abs J ur: NZhBiol., No 13, 1950, No 82683

Author : Kazda, Vaclav; Strelcova, Jana

Inst :

Title : Stem Bumps with Adventitious Roots in Kohlrabi  
(*Brassica oleracea* L. var. *gongylodes* L.)

Orig Rub: Ceskosl. Biol., 1957, 6, No 470-474

Abstract: In Prague and its environs during the first summer months of 1955-1956 Kohlrabi stalks displayed small bulges to which adventitious roots were attached. The young tubercles consisted of several nodes, and the old ones were in the form of hemispheres with a diameter of 4 - 8 mm. Adventitious roots grew out

Card : 1/2

Country : CZECHOSLOVAKIA

Category: Plant Diseases. Diseases in Cultivated Plants.

**APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653410013-7"**

Abs J ur: NZhBiol., No 13, 1950, No 82683

from the tubercles which came in contact with the ground or which were covered with moist soil during banking. Two types of bacteria were isolated from the bumps, namely - Gram-negative and Gram-positive rods. Their participation in the emergence of the tubercles and roots was not proved. -- G.V. D'yankova

Card : 2/2

DOBERSKY, P.; PECHOVA, I.; HORACKOVA, E.; PARIZKOVA, J.; VAVRINKOVA, H.;  
techn. spoluprace KLUSONOVÁ, H.; STORKOVA, H.

Metabolism in obese subjects. Cesk. gastroent. vyz. 16 no.3/4:230-237  
Ap '62.

1. Ustav pro vyzkum vyzivy lidu v Praze, reditel doc. MUDr. J. Masek,  
DrSc.

(DIET REDUCING)

NEYMAN, Kazimierz; LAWIDOWSKA, Irena; STORKOWSKA, Incyna

Brucellosis in workers of dairy industry and of milk-collection centers  
in the Poznan province. Przegl. epidem., Warsz. 12 no. 2:147-150 1958.

I. Z Działu Epidemiologicznego Stacji San. -Epid. w Poznaniu Kierownik

Działu: dr med. K. Heyman Dyrektor Stacji: dr med St. Orszymala.

(BRUCELLOSIS, epidemiology,

in dairy workers (Pol))

(OCCUPATIONAL DISEASES,

brucellosis in dairy workers (Pol))

RYNDIN, H.M.; STORODINSKIY, Ya.A.

Unitarity correlations for elastic collisions of particles having  
arbitrary spins. Zhur. eksp. i teor. fiz. 32 no.6:1584-1585 Je '57.  
(MIR 10:8)

1. Ob"yedinennyj institut yadernykh issledovaniy.  
(Collisions (Nuclear physics))

PHASE I BOOK EXPLOITATION

1145

Gol'danskiy, Vitaliy Iosifovich and Leykin, Yevgeniy Moiseyevich

Prevrashcheniya atomnykh yader (Transformations of Atomic Nuclei) Moscow,  
Izd-vo AN SSSR, 1958. 425 p. 20,000 copies printed.

Resp. Ed.: Storodinskiy, Ya. A.; Dir. of Publishing House: Mazin, I.P.  
and Chernyak, L.Ye.; Tech. Ed.: Prusakova, T.A.

PURPOSE: This book is intended for readers who have a knowledge of physics and who  
wish to increase their knowledge of the basic problems of nuclear physics.

COVERAGE: The book deals with the properties of atomic nuclei and elementary  
particles, models of atomic nuclei, methods and means for carrying out and ob-  
serving nuclear reactions, detailed descriptions of methods of using nuclear  
reactions to obtain information on the structure of nuclei, and descriptions  
of the reactions used to obtain atomic energy - fission chain reactions and  
thermonuclear reactions. There are 14 Soviet references.

Card 1/4

Transformations of Atomic Nuclei

1145

## TABLE OF CONTENTS:

|   |     |
|---|-----|
| Foreword  | 3   |
| Ch. I. On Some Special Features of "Micro"-Physics                  | 5   |
| Ch. II. Basic Information on Atomic Nuclei and Elementary Particles | 21  |
| Composition of nuclei. Charge and mass number                       | 21  |
| Dimensions and density of nuclei. Bond energy of nuclei             | 24  |
| Mechanical, magnetic and electrical moments of nuclei               | 27  |
| A nucleus with even and odd Z and N. "Magic" numbers                | 33  |
| Radioactive disintegration of nuclei                                | 36  |
| Elementary particles and their transformations                      | 49  |
| Ch. III. Excited States of Atomic Nuclei. Nuclear Models            | 72  |
| Comparison of atomic and nuclear spectra                            | 72  |
| Levels of light nuclei. The shell model                             | 84  |
| The lower levels of heavy nuclei. The drop model                    | 92  |
| Highly excited heavy nuclei. Statistical theory                     | 100 |

Card 2/4

|  |      |
|--|------|
| Transformations of Atomic Nuclei                                       | 1145 |
| Ch. IV. General Characteristics of Nuclear Reactions                   | 106  |
| Notation. General determinations                                       | 106  |
| Cross-sections and yields of nuclear reactions                         | 109  |
| Angular and energy distributions of reaction products                  | 113  |
| Ch. V. Methods of Observing Nuclear Reactions                          | 118  |
| Electrical methods of registering particles                            | 119  |
| Radiochemical methods of separating nuclear reaction products          | 153  |
| Indirect methods of observing charged particle tracks (visual methods) | 157  |
| Ch. VI. Methods for Accomplishing Nuclear Reactions                    | 189  |
| Methods of accelerating charged particles                              | 190  |
| Methods of obtaining neutron beams                                     | 218  |
| Using beams of bombarding particles to accomplish nuclear reactions    | 228  |
| Ch. VII. Nuclear Reactions   | 246  |
| The compound nucleus   | 246  |
| Cross-section of compound nucleus formation (absorption cross-section) | 250  |
| Probability of compound nucleus disintegration                         | 273  |
| Energy and angular distribution of nuclear reaction products           | 278  |

Card 3/4

|  |      |
|--|------|
| Transformations of Atomic Nuclei   | 1145 |
| Reactions caused by the influence of neutrons, protons and alpha particles | 283  |
| Reactions caused by the influence of deuterons                             | 305  |
| Photonuclear reactions   | 309  |
| Nuclear reactions with superenergy   | 317  |
| Electron scattering by nuclei  | 328  |
| Ch. VIII. Fission Chain Reactions and Thermonuclear Reactions              | 336  |
| Chemical chain reactions. Chain and heat explosions                        | 337  |
| Disintegration of heavy nuclei   | 340  |
| Slow-neutron reactors  | 352  |
| Breeder reactors   | 363  |
| Atomic explosion   | 368  |
| Thermonuclear reactions  | 373  |
| Thermonuclear explosion  | 390  |
| Controlled thermonuclear reactions   | 400  |
| Bibliography   | 424  |
| AVAILABLE: Library of Congress   |      |
| Card 4/4   |      |

TM/mas  
2-13-59

'BC

H - 7

Equilibrium conditions in two-phase multicomponent  
systems. A. V. Kargin and L. M. Pustynskii. U.P.S.S.R.  
1960, No. 6, p. 126. The general conditions for equilibrium  
in a two-phase system of n components are expressed by  
differential equations, and certain known regularities are  
deduced as special cases.

F. J. G.

Equilibrium conditions in many-component two phase systems. I. Nonreacting systems. A. Staronkin. J. Russ. Chem. U. S. S. R. 13, No. 67 (1941). See C. A. 35, 2807. II. Reacting systems. Ibid. 14, 77. The general equal conditions are discussed. The change of vapor tension as a function of compn. is considered in the light of the second Gibbs-Konovalov law, and this law found to be nonapplicable to nonideal systems with more than 3 components. The thermodynamic conditions under which the law is obeyed are deduced. Ideal polyatomic systems always obey the law. F. H. R.

*Reactions and conditions of polyacrylamide systems.* III  
A. G. Slobodkin. *J. Phys. Chem. (U. S. S. R.)* 15, 660 (1941); *J. C. A.* 24, 330<sup>a</sup>. — Math. P. H. D.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653410013-7"

UNCLASSIFIED  
Chemistry - Systems  
Chemistry - Equilibrium

Sep 1947

"Conditions of Equilibrium of Multicomponent Systems,  
Part IV," A. V. Staronkin, 11 pp

"Zhur Fiziches Khim" Vol XII, No 9 p.1069-79

Largely mathematical discussion which is Parts 11 and  
12 of an earlier article. Part 11 discusses the  
pseudo-extremes of pressure and temperature of two-  
phase n-component systems, and Part 12 deals with the  
pseudobinary systems and their curves. This work  
was submitted at the Laboratory of Physical Chemis-  
try, Leningrad Order of Lenin State University.  
Reference is made to the author's articles in "Zhur  
Fiz Khimi" Vol IV, 1941, pp 68 and 959.

2474

STORONKIN, A. V.

[Conditions for thermodynamic equilibrium in multicomponent systems]  
Ob usleviakh termodynamicheskogo ravnevesiya mnogokomponentnykh sistem.  
Izd-vo Leningradskogo gos. un-ta Lenina, 1948. 120 p. (MLRA 9:5)  
(Thermodynamics)

1. БИБЛИОГРАФИЯ, 2-е издание, М., Т.
2. USSR (600)
3. Phase Rule and Equilibrium
4. Study of general and partial vapor tensions of the system "hydrogen chloride + sulfuric acid - water." Vest. Len. un. 7 No. 6, 1952
5. Monthly List of Russian Accessions, Library of Congress, May 1993, Incl.

STORONKIN, A.Y.; SUSAREV, H.P.

Thermodynamic relation between the compositions of azeotropic mixtures of multicomponent systems. Vest. LGU 8 no.5:91-112 My '53. (MIRA 12:7)

(Systems (Chemistry)--Thermal properties)

STORONKIN, A.V.

Physical Chemistry

Chemical Physics

Chemical Thermodynamics

Chemical Kinetics

Chemical Equilibrium

Chemical Thermodynamics

Chemical Kinetics

Conditions of equilibrium of multicomponent systems

V. A. V. Storonkin [A.A. Zhdanov State Univ. Leningrad]. Zhur. fiz. khim. 27, 617-23 (1953); cf. C.A. 42,

21953--The conditions of equil. are found mathematically

for multicomponent, two-phase systems in which the compn.

of one phase is changed by addn. of a small amt. of the other

phase. A pseudextreme may occur if thermodynamic sim-

plication can result from such addn. at const. temp. and

pressure. Some special properties of systems having a

pseudextreme of (temp. and pressure are considered).

J. W. Lowther, Jr.

NK

S S R A

/Equilibrium conditions of multicomponent systems VI

A. V. Storozhenko and M. P. Sarsayev. A. A. Zhdanov. State

Academy of Sciences of Kazakhstan. Institute of Technology.

Zhur. Fiz. Khim. 17, No. 9 (1943).

C.A. 36, 3231, 48, 24314.—A differential equation is derived

for the rotation of the couple of a vapor to liquid in pressure

for the case when the couple of the solute is changing in

accordance to the conditions for thermodynamic simplicity.

Approx. formulas are developed for the relation among the

properties for binary and ternary systems under

isothermal and isobaric conditions. A rule is presented for

the calculation of the couple of thermodynamically favorable

binary and multicomponent azeotropic mixts. from the prop-

erties of binary mixts. contg. common components with

those for which the calcs. are being made. J. R. L.

USSR.

The conditions for thermodynamic equilibrium of a ternary, three-phase system of the type solid phase solution-vapor. I. The solubility isotherms and the vapor pressure curves for ternary three-phase systems in relation to the nature of the interaction of the components in the liquid phase. A. V. Storozkin. *Vestn. Leningrad. Univ.*, No. 4, Ser. Mat., Fiz. i Khim. No. 3, 1960-1961; cf. No. 4, Ser. Mat., Pt. 1 Khim. No. 3, 1960-1961; cf. No. 4, Ser. Mat., Pt. 2, 1962. Differential equations are developed for the solid-isotherms and for the vapor-pressure curves for solid-ternary salts. The type of isotherm is discussed in relation to the interaction of the components in solid-ternary salts that are in equil. with a solid phase containing a single component. The effect of the change in composition of such a ternary salt on its vapor pressure is related to the character of the distribution of the volatile components between the solid and the vapor. J. Rovtar Leach

STORONKIN, A.V.

Equilibrium conditions and some other properties of multiphase systems.  
Vest.Len.uz.9 no.2:115-128 p '54.  
(MLRA 9:7)  
(Phase rule and equilibrium)

CHORNOKIV, BY.

USSR.

✓ Derivation and limits of applicability of the D. P. Konovalov  
and M. S. Vysotskii laws for binary systems. A. Y. Stepanov  
In: *Vestn. Leningr. Univ. No. 8, Ser. Khim. 1973-1974*  
[ISSN 0869-5123] Ref. Zhar., Khim. 1974, No. 3029 — The ap-  
plicability of the Konovalov laws for isothermal and iso-  
baric conditions are analyzed. The Vysotskii laws and their  
applicability are derived on the basis of a general thermo-  
dynamic relation between pressure, temp., and composition  
of the phases present. M. Il'ich

CH

M

STORONKIN, A.V.

D.P.Konovalov, the outstanding Russian physical chemist; 25th anniversary  
of his death. Vest.Len.un.9 no.5:167-176 My '54. (MLRA 9:7)  
(Konovalov, Dmitrii Petrovich, 1856-1929)

STORONKIN, A.V.

Conditions for the thermodynamic equilibrium of ternary three-phase systems of the type: solid phase -- liquid -- vapor. Part 1. Solubility isotherms and vapor-pressure curves in ternary three-phase systems in connection with the nature of interaction of components in the liquid phase. Vest.Len.un. 9 no.8:169-187 Ag '54. (Thermochemistry) (Systems (Chemistry)) (MIRA 8:7)

STORONKIN, A.V.; SHUL'TS, M.M.

Variation in the chemical potentials and partial pressures of components of ternary two-phase systems during isothermal and isobaric change of composition. Part 1. Vest.Len.un. 9 no.11:153-165 N '54. (MLRA 8:?)  
(Systems (Chemistry))

*Sternikin, A. V.*

0000/Chemistry - Liquid-Vapor Equilibrium

Card 1/1 : Iss. No. 107 - 10/20

Authors : Sternikin, A. V.

Title : About the thermodynamic possible forms of isotherm-isobar curves of homogeneous systems. Part 1.-

Periodical : Zhar. fiz. khim. 28/11, 2021-2041, November 1954

**Abstract** : The problem concerning the thermodynamically possible isotherm-isobar curves is discussed. A method for the analysis of isotherm-isobar curves, which is also applicable to solubility isotherms, is presented. A different kind of isotherm-isobar equation, which is appropriate for simple systems, is formulated. A direct connection between the liquid-vapor equilibrium and the calculation of phase effects was established. Temperature, vapor pressure, the type of the existence of vaporization, were found. Four tables of curves (11V-1954). Tables; graphs.

Institution : T. N. K. M. Moscow State University, Leningrad

Submitted : March 22, 1954

STORONKIN, A. V.

USSR/chemistry - Physical chemistry

Card 1/2

Pub. 147 - 14/26

Authors :

Storonkin, A. V., and Markuzin, N. P.

Title :

Study of vapor pressures of saturated and unsaturated KCl solutions  
in hydrochloric acid

Periodical :

Zhur. fiz. khim. 29/1, 111-119, Jan 1955

Abstract :

The vapor pressure of saturated and unsaturated KCl solutions in  
hydrochloric acid was experimentally investigated at 25°C. The form  
of the solubility isotherm and the curves representing the total  
and partial vapor pressures of saturated tertiary KCl-HCl-H<sub>2</sub>O  
solutions was established on the basis of the thermodynamic theory  
of tertiary saturated solutions. It was found that the solution with  
minimum vapor pressure evaporates without any change in its composition.

Institution :

The A. A. Zhdanov State University, Leningrad

Submitted :

May 19, 1954

Periodical : Zhur. fiz. khim. 29/1, 111-119, Jan 1955

Card 2/2 Pub. 147 - 14/26

Abstract : The values of total and partial pressures for saturated and unsaturated ternary KCl solutions are tabulated. Eight USSR references (1948-1954). Tables; diagrams

STORONKIN, A.V.

User/ Scientist

Card 1/1 Pub. 127 - 11/13

Authors : Storontkin, A. V., and Dobrotin, R. B.

Title : ~~Review of the D. I. Mendeleev teaching on solutions~~  
Brief review of the D. I. Mendeleev teaching on solutions

Periodical : Vest. Len. un. Ser. mat. fiz. khim. 10/2, 157-171, Feb 1955

Abstract : A brief review is made of the development process together with an analysis of the scientific importance of the basic ideas of the D. I. Mendeleev teaching on solutions. A list of D. I. Mendeleev's works on the theory and chemistry of solutions since 1862 is included. Eleven Russian references (1862-1905).

Institution : .....

Submitted : June 29, 1954

STOCHINKIN, A.V.; MORACHINSKIY, A.G.

Applicability of Konovalov's first law to ternary solution -- vapor systems. Zhur.fiz.khim. 29 no.12:2194-2203 D '55. (MLRA 9:5)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.  
(Phase rule and equilibrium)

The applicability of Kurnakov's first law to ternary systems containing mixtures of steam, A. V. Stepanov and A. G. Morachevskii (A. A. Zhdanov State Univ., Leningrad). Zhur. Khim. 29, 2194-2203 (1955). Kurnakov's first law (Zhur. Khim. 29, 2194-2203 (1955), loc. cit.) shows that the vapor pressures of the components in a mixture are such that an increase in the concn. of the component that has a higher concn. in the vapor than in the liquid, results in an increase in the vapor pressure, and a lowering of the b.p. of the mixture. A generalization of the applicability of the law to ternary and more complex systems is presented. The application is discussed of the law to ternary systems when changing the concn. along the curves of thermodynamic equilibrium, the curves which intersect the complete triangle by curves of its sides, complete extremes and the curves of open evaporation.

W.M. Stenseth

Storozhenkin, A.V.

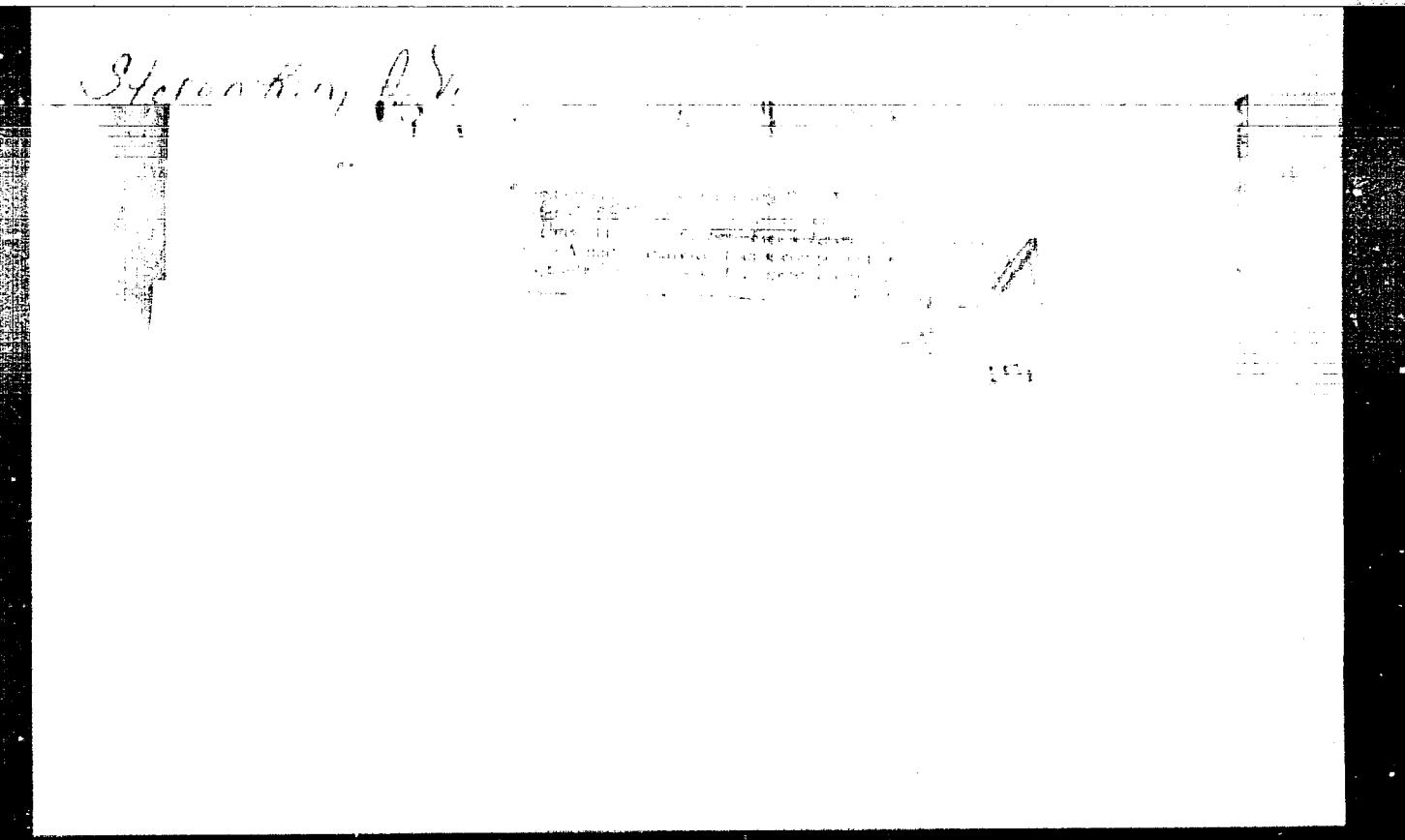
Effect of composition and temperature on the equilibrium between solution and vapor in benzene systems. A. S. Strohman and A. G. Marshall, *J. Am. Chem. Soc.*, 53, 3200 (1931). The authors studied the equilibrium between benzene and its vapors at temperatures from 20° to 100° C. The equilibrium of the benzene vapor pressure was determined by the method of Knudsen. The equilibrium of the benzene solution was determined by the method of Raoult. The equilibrium constants were calculated from the Raoult's law equation. The results obtained are given in the following table.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7"

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7



APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7"

Changes in the chemical potential and in the partial pressures of the components of heterogeneous systems during isothermal isobaric changes in composition. II. M. M. Shultz and A. V. Storozhenko. *Vestnik Leningrad.* Univ. 11, No. 22, *Soviet Chem. No. 4, 111-23 (1954);* cf. C.A. 50, 9120d. — The relation between changes of intensive and of extensive parameters of heterogeneous systems is examined thermodynamically in a general locus. The results are applied at const. pressure and temp. to ternary systems consisting of 2 phases of variable compn. The slopes of tie-lines are related to the rate of change of chem. potential of a component with respect to its mole fraction in the system as a whole. A graphic method is given for find-

ing the sector within which the tie-lines must lie that connect compns. of binary solns. and of ideal vapors in equil. with them. J. D. Purcell

STORONKIN, A. V.

The solution-vapor equilibrium in the benzene-cyclohexane-isopropyl alcohol system. A. V. Storonkin and A. G. Morachevskii (A. A. Zhurkov State Univ., Leningrad). *Zhur. Fiz. Khim.* 30, 1573-1577 (1956). The osmotic data on the vapor-solution equil. were used to construct diagrams for the isothermal or isobaric equil. The data verify the conclusion made previously (*J. Am. Chem. Soc.* 75, 10243) that regions exist in ternary systems that do not obey Konovalov's first rule.

J. Kovtar Leach

✓  
Chen

STORONKIN, A. V.

3

V 12938\* (Russia) The Effect of Temperature and Pressure on the Composition of Ternary Aluminosilicate Systems *Titanium Dioxide vs. Calcined Kaolinite*. A. V. Storokin, A. G. Morozov, and L. S. Kostylev. *Russ. Mineralog. Zhurn.*, v. 31, Feb. 1963, p. 175-191.

Anisotropic conditions at different temperatures and pressures were determined for the systems kaolinite + calcined kaolinite + titanium dioxide. The results of these measurements are presented in tables and graphs. The effect of pressure on the composition of the system is discussed.

STORONKIN, A.V.

✓  
W.M.

Thermodynamically possible scalar isotherms<sup>1</sup> shape of  
ternary systems. A. V. Storonkin. V. A. Sternberg  
USSR, Patent No. 1074677, Publ. in 1983, 01/1984.  
<sup>2</sup>  
The "isotherm oscillator" was used for finding of iso-  
therms and isotherms by means of which the pressures and  
temperatures of 2 phases of binary systems are ex-  
pressed. The concept of phase effects is intro-  
duced, and for the first time, the influence of a change in the phase  
composition due to the mutual transformation of phases on the  
shape of the components in the respective phases. The  
differential equations for the isotherms<sup>3</sup> isotherms are expressed  
in terms of the phase effects, and 3 theorems are formulated  
defining the relation between the phase effects and the  
form of the isotherms<sup>4</sup>. The theoretically possible  
shapes of the isotherms<sup>5</sup> are discussed, and the analy-  
sis of their shapes proves their applicability to the iso-  
therms. W. M. Sternberg

Saturated and unsaturated polyacrylate ester  
chloride solutions in hydrochloric acid  
and N. P. Makarov and V. V. Kabanov were used.  
Fig. XAPP-IV, 111-1911. Preliminary  
under isothermal conditions at 25°C., preliminary  
investigation showed that the polymerization reaction  
reached equilibrium at 20% conversion and remained  
unstable. The final conversion was 20% at 25°C. and  
18.00 M. The complete conversion was 20% at 25°C. and  
measured by entrainment of the polymer solution. The  
shape of the polyacrylate ester measured from the graph  
vapor pressure of acid water measured from the graph  
point of the thermodynamic theory of transition state.

USSR Physical Chemistry. Thermodynamics, Thermochemistry, H-8  
Equilibria, Physical-Chemical Analysis. Phase Transitions.

Abs Jour: Ref Zhur-Khimika, No 5, 1957, 14636

Author : A. V. Storonkin, A. G. Morachevskiy

Inst :

Title : Concerning The Application of Konovalov's First Law to  
Ternary Systems Solution-Vapor

Orig Pub: Zh. fiz. khimii, 1955, 29, No 12, 2194-2203

Abstract: A general solution of the question concerning the applicability of the first law of Konovalov to ternary systems is given. The applicability of the law is proved thermodynamically in cases that the solution composition changes along the curves of the thermodynamical simplification, the secants of the composition triangles, the curves of incomplete extremes, and curves of open evaporation. There are regions where the law is not carried out, if the composition was altered by the addition of one of the components of ternary systems producing azeo-

Card 1/2

Equilibrium, physico-chemical theory ->

Abs Jour: Ref Zhur-Khimika, No 5, 1957, 14636

Approved for Release: 08/26/2000 CIA-RDP86-00513R001653410013-7  
Abstract: mixtures. The possible regions of application of the first law to ternary systems are shown.

Card 2/2

STORONKIN, A.V.; MORACHEVSKIY, A.O.

Effect of changes in the composition and temperature on the equilibrium  
between solutions and vapors in ternary systems. Vest.Len.us.11 no.4:  
69-82 P '56. (MLRA 9:7)  
(Systems (Chemistry)) (Phase rule and equilibrium)

USSR/Statistical Physics - Liquids

D-8

Abs Jour : Referat Zhur - Fizika, № 5, 1957, 11525

Author : Storonkin, A.V.

Inst :

Title : Certain Problems of the Thermodynamics of Systems, that  
Obey the Conditions of Isolation of Matter

Orig Pub : Vestn. Lenin.r. un-ta, 1956, № 16, 74-84

Abstract : Discussion of several general thermodynamic relations for  
open systems, i.e., such systems in which the matter can  
be exchanged with the surrounding medium. The most gene-  
ral case of a multi-component and multi-phase system, in  
which chemical reactions can take place, is considered.  
A detailed analysis is made of the Gibbs phase rule as  
applied to all possible variants of such systems, and at-  
tention is given to the problem of the meaning and applicability of  
thermodynamic potentials, particularly the chemical poten-  
tial, for such systems. It is emphasized that these

Card 1/2

USSR/Statistical Physics - Liquids

D-8

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 11525

importance are very important for geology, and many works of other writers are critically surveyed.

Card 2/2

*STANZA 1*  
USSR/ Chemistry - Physico-chemical analysis

Card 1/2      Pub. 147 - 27/35

Authors      1 Storonkin, A. V.

Title      1 Critique of certain principles and concepts of the physico-chem. analysis

Periodical : Zhur. fiz. khim. 30/1, 206-216, Jan 1956

Abstract      1 The author offers a critique of the continuity and conformity principles as well as concepts of certain singular points of physico-chemical diagrams. The chemical and thermodynamic difference between the conception of a phase and solution is explained. It is pointed out that some special points on the "composition - state" diagram pertaining to nondissociating specific compounds are the end points of various curves representing qualitatively

Institution : Leningrad State University, im. A. A. Zhdanov

Submitted : April 2, 1955

Card 2/2      Pub. 147 - 27/35

Periodical : Zhur. fiz. khim. 30/1, 206-216, Jan 1956

Abstract : different relations between properties and composition. In order to eliminate errors of false concepts the author suggests certain changes in the terminology and definitions of certain concepts pertaining to physico-chem. analysis. Twelve USSR references: (1934-1955). Graphs.

STORONKIN, A.V.; MORACHEVSKIY, A.G.

Solution-vapor equilibrium in the system: benzene -- cyclohexane --  
--isopropyl alcohol. Zhur.fiz.khim. 30 no.6:1297-1307 Je '56.  
(MLRA 9:10)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.  
(Benzene) (Cyclohexane) (Isopropyl alcohol)

Distr: 4E4J

Three-layered solutions of triethylamine-phenoxy-water.  
N. P. Markulin and A. V. Stepanov. *Vestnik Leningrad.*  
Univ. 12, No. 10, 357. *Fiz. i Khim.*, No. 3, 123-47(1957).  
The liquid-liquid-vapor and liquid-vapor equil. of Et<sub>3</sub>N-  
PhOH-H<sub>2</sub>O were studied experimentally at 15° and 35°,  
and extensive diagrams, tables, and math. equations are  
given. The binodal curves of the system at 15° are dis-  
cussed in the light of phase effect theory; their S-shape is not  
due to contamination. The change in partial and total  
vapor pressure vs. vol. compn. was studied, and agreed  
with thermodynamic theory. *Malcolm Anderson* //